

10/526699
DT01 Rec'd PCT/PT 03 MAR 2005

CLAIMS:

WHAT IS CLAIMED IS:

- 1.(Original) A method for establishing a flow comprising:
 - receiving at a wireless network node a first request message, said first request message comprising at least one quality of service parameter for the flow;
 - granting a plurality of quality of service parameters;
 - sending from the wireless network node a second request message, the second request message comprising one or more granted quality of service parameters.
- 2.(Original) The method of claim 1 wherein the wireless network node is a radio node.
- 3.(Original) The method of claim 1, further comprising:
 - sending from the wireless network node to a mobile station a reply message, said reply message including the granted plurality of quality of service parameters and airlink parameters for the flow.
- 4.(Original) The method of claim 3, wherein said reply message further includes a flow identifier.
- 5.(Original) The method of claim 2 further comprising receiving from a node other than the wireless network node and a mobile station that originates the first request message, and prior to the sending of the first request message, a subscriber profile that includes a series of quality parameters associated with the mobile station.
- 6.(Original) The method of claim 2, further comprising:
 - sending from a mobile station that originates the first request message to a further node a filter message, said filter message including at least one packet filter.
- 7.(Original) The method of claim 6, wherein the at least one packet filter comprises a plurality of packet filter content options, and the at least one packet filter is identified by a flow identifier.

8.(Original) The method of claim 2 further comprising:

determining at the wireless network node that the flow cannot be further supported to meet the plurality of quality of service parameters that were granted;

sending a modified second request message that includes at least one updated quality of service parameter; and

receiving authorization to satisfy the at least one updated quality of service parameter.

9.(Original) The method of claim 8, wherein the modified second request message includes an identifier for the flow.

10.(Original) The method of claim 1 further comprising:

determining a policy to apply to a packet transported on the flow, and mapping an identifier associated with the flow to the policy.

11.(Original) The method of claim 10, wherein determining a policy is at a further node, the method further comprising enforcing the policy at the further node on the packet sent in at least one of an uplink and a downlink direction.

12.(Original) The method of claim 10 wherein determining a policy is at the wireless network node, the method further comprising enforcing the policy at the wireless network node for the packet sent at least in an uplink direction from the first to the further node.

13.(Original) The method of claim 10 wherein determining a policy is at the further node, the method further comprising enforcing the policy at the wireless network node at least for the packet sent in an uplink direction from the wireless network node to the further node.

14. (Canceled)

15.(Original) A signaling protocol to enable an assured quality on a flow comprising:

a radio node receiving from a mobile station a request that includes at least one quality of service parameter for the flow;

the radio node sending to the mobile station a grant of a set of quality of service parameters for the flow;

the radio node further sending a registration request to a packet data switching node that includes the granted set of quality of service parameters for the flow; and.

the radio node receiving from the packet data switching node a registration reply that authorizes the flow.

16.(Original) The signaling protocol of claim 28 further comprising the mobile station sending a filter message to the packet data switching node that comprises at least one packet filter for the flow.

17.(Original) The signaling protocol of claim 28 further comprising receiving at the packet switching data node from an AAA node a series of quality of service parameters associated with the mobile station.

18.(Original) The signaling protocol of claim 15, wherein the grant comprises, in a single message, an identifier for the flow.

19.(Original) The signaling protocol of claim 15 wherein the request comprises, in a single message, an identifier for the flow and the at least one quality of service parameter.

20-22. (Canceled)

23.(Original) A wireless network node comprising:

a receiver for receiving a QoS parameter request message that includes at least one quality of service parameter for a flow;

a controller coupled to the receiver for determining and granting at least one quality of service parameters; and

a transmitter coupled to the controller for sending, in response to the controller determining and granting, a reply message to the mobile station.

24.(Original) The wireless network node of claim 30, wherein the registration request message further comprises the at least one quality of service parameter.

25-26. (Canceled)

27.(Original) The method of claim 2 wherein the further node is a packet data switching node.

28.(Original) The signaling protocol of claim 15, further comprising:
the mobile station signaling the packet data switching node via the radio node with packet filters that identify the flow.

29.(Original) The wireless network node of claim 23, wherein the transmitter is further for sending a registration request message to a packet data switching node.

30.(Original) The wireless network node of claim 29, wherein the registration request message comprises an identifier for the flow.

31.(New) A wireless network node comprising:
means for receiving a QoS parameter request message that includes at least one quality of service parameter for a flow;
coupled to the receiver, means for determining and granting at least one quality of service parameters; and
coupled to the controller, means for sending, in response to the controller determining and granting, a reply message to the mobile station.

32.(New) The wireless network node of claim 31, wherein the means for receiving comprises a receiver coupled to at least one receive antenna, the means for determining

Appl'n filed on March 2, 2004 by Haihong Zheng and Marc Greis
entitled: QUALITY OF SERVICE SUPPORT AT AN INTERFACE BETWEEN MOBILE AND IP NETWORK
Preliminary Amendment dated March 2, 2005

comprises an electronic controller, and the means for sending comprises a transmitter coupled to at least one transmit antenna that may be said at least one receive antenna.